

Job Costing

Job costing is a “form of specific order costing which applies where work is undertaken according to customer’s specifications”.

Job costing is a method of cost accounting where by cost is compiled for a specific quantity of product, equipment, repair or other service that moves through the production process as a continuously identifiable unit, applicable material, direct Labour, direct expenses and usually a calculated portion of overheads being charged to a job order.

Which Industries Job Costing is Applied

Job costing is applied in those industries where the goods are manufactured or services are rendered against specific orders as per customer’s specifications. It is generally applied in

- ✓ Engineering Industries
- ✓ Construction Industries
- ✓ Ship-Building Industries
- ✓ Furniture Making Industries
- ✓ Machine Manufacturing Industries
- ✓ Automobile Service Industries
- ✓ Repair shops Industries

Features of Job order Costing

1. The production is generally against customer’s order but not for stock.

2. There is no uniformity in the flow of production from department to department. The nature of the job determines the departments through which the job has to be processed. The production is intermittent and not continuous.
3. Each job is treated as a cost unit under this method of costing.
4. The cost of production of every job is ascertained after the completion of the job.
5. The work-in progress differs from period to period according to the number of jobs in hand.
6. A separate job cost sheet or job card is used for each job and is assigned a certain number by which the job is identified.

Objectives of Job Costing

1. It helps to find out the cost of production of every job or order and to know the profit or loss made on its execution.
2. It helps the management to make more accurate estimates for costs of similar jobs to be executed in future on the basis of past records.
3. It helps the management to control the operational inefficiency by making a comparison by making a comparison of actual costs with the estimated ones.
4. It helps the management to provide a valuation of work-in-progress.

Advantages of Job Order Costing

1. To know a detailed analysis of cost of materials, Labour and overheads charged to each job.
2. To ascertain profit or loss made on each job.
3. To estimate the costs and profitability of similar jobs to be taken up in future.
4. To control operational inefficiency by comparing the actual costs with the estimated costs.
5. To identify jobs where waste, scrap, spoilage and defectives occurred and take corrective action against the responsible person or department.

Documents Used in a Job Order Cost System

The following are the important documents used in a job order cost system.

1. Production order or Manufacturing Order:

This is a work order authorizing the production department to produce a specified quantity of a product which constitutes the job.

2. Cost Sheet:

For recording costs, very often a separate record called a cost sheet is used. The cost sheet and the work order may also be combined, when costs are recorded on the production order itself.

3. Other Documents:

The other documents which are used as actual mechanism by the dispatching function are material requisitions, tool orders, time tickets, inspection order etc..

Procedure of Job order cost system

1. Receiving an Enquiry:

The customer will usually enquire about the price, quality to be maintained, the duration within which the order is to be executed and other specification of the job before placing an order.

2. Estimation of the price of the job:

The cost accountant estimates the cost of the job keeping in mind the specification of the customer.

3. Receiving the order:

If the customer is satisfied with the quotation price and other terms of execution, he will then place the order.

4. Production Order:

If the job is accepted, a production order is made by the planning department. It contains all the information regarding production. It is prepared with sufficient copies so that a copy of the same may be given to all the departmental managers or foreman who are required to take any part in the production.

PRODUCTION ORDER

Sl. No: -----
 Description:---
 Code No: -----
 Customer Order No. ----
 Material Requisition No. -----
 Operation NOs. ----
 Machine NOs. -----

Quantity Ordered-----
 Date :-----
 Date of Commenced ----
 Date of finished -----

Clock Time	Operation No.	Department No.	Operation		Quantity	
			No.	Details	Made	Rejected

When an order is received production control department allots a production order number to it.

Recording of cost

The costs are collected and recorded for each job under separate order number.

The basis of collection of costs are

a) Materials: Material Requisitions, Bill of material or materials issue analysis sheet.

b) Wages: Operation Schedule, job card or wage analysis sheet.

c) Overheads: Standing Order Numbers or Cost Account Numbers

JOB COST SHEET

Job/Production Order No:-----

Particulars:-----

Date commenced:-----

Customer:-----

Quantity:-----

Date Completed:-----

Material				Labour				Overheads			
Date	Department	Material Requisition No.	Amount (Rs.)	Date	Department	Time Ticket No.	Amount (Rs.)	Date	Department	Rate Rs)	Amount (Rs)
Total			Rs				Rs				Rs

	Summary			
		Estimated Cost (Rs.)	Actual Cost (Rs.)	Difference (Rs.)
	Materials			
	Labour			
	Over Heads			
	Total			

6. Completion of Job:

On completion of a job, a completion report sent to costing depart. The expenditure under each element of cost is totaled and the total job cost is ascertained. The actual cost is compared with the estimated cost so as to reveal efficiency or inefficiency in operation.

7. Profit or loss on job:

It is determined by comparing the actual expenditure or cost with the price obtained.

Process Accounting

Process costing as “ that form of operation costing which applies where standardized goods are produced”.

Process costing is a method of costing under which the all costs are accumulated for each stage of production and the cost per unit of product is ascertained at each stage of production by dividing the total cost of each process by the normal output of that process.

Features of process costing

1. The production is continuous.
2. The product is homogeneous.
3. The processes are standardized.
4. The output of one process becomes the input of another process.
5. The output of the last process is transferred to finished stock account.
6. Costs are collected process wise
7. Cost per unit is calculated at the end of period by dividing the total process cost by the normal output produced.

Application of Process Costing

1. Chemical Works
2. Textile, weaving, spinning etc.
3. Soap making
4. Paper mills
5. Biscuit works
6. Oil refining
7. Food products
8. Coke works
9. Paint, ink and varnishing etc.
10. Milk dairy

Comparison Between job costing and process costing

Basis of distinction	Job costing	Process Costing
1. Production	Production against specific orders	It is continuous flow, product being homogeneous
2. Cost Determination	Costs are determined for each job separately.	Costs are compiled for each process for department on time basis.
3. Entity	Each job is separate and independent of others	Manufactured in a continuous flow
4. Unit Cost	Total cost of a job is divided by the number of units produced in the job in order to calculate unit cost of a job	Avg. cost per unit = Total cost of each process is divided by production for the process.
5. Cost Calculation	Costs are compiled when a job is completed	Costs are recalculated at the end of the cost period
6. Transfer	There is no transfer of cost from one job to another	Costs are transferred to one process to next process
7. W.I.P	May or may not be W.I. P at beginning or end of the accounting period	Always some W.I.P. at beginning or end of the accounting period.
8. Control	Proper control is difficult production is not continuous	Easier
9. Forms & Details	It requires more forms and details regarding materials and Labour due to the need for the allocation of Labour to so many orders and materials issued in bulk to departments.	It requires few forms and less details but a closer analysis of operations is needed.
10. Suitability	It is suitable when goods are made to customer's order	Goods are made for stock and continuous production.

Procedure of process Costing

1. Classification of Production activities into distinct processes.

2. Classification of cost by process
3. Separate Account
4. Items of debit side
 - ✓ Cost of Material
 - ✓ Cost of Labour
 - ✓ Direct Exp.
 - ✓ O/H Charges
 - ✓ Cost of Rectification or normal defectives
 - ✓ Cost of Abnormal gain
5. Items of credit side
 - ✓ Scrap value or normal Loss
 - ✓ Cost of abnormal loss

Equivalent product units:

Production units denoted into equivalent percentage

Calculation of Average cost per Unit

$$\text{Avg. Cost per unit} = \frac{\text{Total cost} - \text{Scrap Value of Normal Loss (if any)}}{\text{Input} - \text{Units of Normal Loss}}$$

Transfer the cost of output

The cost of output of each process may be transferred directly to next process A/c

Process Account

Particulars	Units	Rs.	Particulars	Units	Rs.
To Basic Materials			By Normal loss A/c		
To direct Materials			By Abnormal Loss A/c		
To direct wages			By Process Loss A/C		
To direct expenses			(Output t/fto next process)		
To Production O/H			By process I Stock A/c		
To cost of Rectification of Normal defectiveness			(Output t/fto process I stock A/c)		

			By P&L a/c (Output sold)		
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Normal Loss = Input x Expected % of Normal

loss Abnormal Loss (Units) = Expected Output – Actual Output

Total cost incurred – scrap value of Normal

loss Cost of Abnormal Loss = $\frac{\text{Total cost incurred} - \text{scrap value of Normal}}{\text{Input} - \text{Units of Normal Loss}}$

Activity Based Costing

Activity based costing (ABC) is a technique of charging overheads to cost objects (i.e. products, services, jobs, customers etc.), under which O.H. are first calculated separately for each activity and then are charged to various cost objects on the basis of activities consumed by these objects.

ABC systems calculate the cost of individual activities and assign costs to cost objects such as products and services on the basis of activities undertaken to produce each product or service.

Terms Used in ABC

a) Activity

An activity may be defined as a particular task or unit of work with a specific purpose. For example, placing of a purchase order, setting up of a machine, after sales service etc.

b) Cost Object:

It is an item for which cost measurement is required. For example a product, a service, a job or a customer.

c) Cost Driver:

It is a factor that influences the cost of an activity. Cost driver is of two types, Resource cost driver and activity cost driver.

✓ Resource Cost driver:

It is a measure of the quantity of resource consumed by an activity.

Ex: Number of purchase orders placed will influence the cost of purchasing the materials

✓ **Activity cost Driver:**

It is a measure of the frequency and intensity of demand placed on the activities by cost objects. It is used to assign activity cost to cost objects consuming the activity.

Some Activities with Cost Drivers

Functional Areas	Activities	Suitable Cost Drivers
Material management	Issue of Purchase orders	No. Of purchase order
	Inspection of materials	No of purchase order
Stores management	Storing Materials	Value of Materials stores
	Servicing of requisitions	No. of requisitions
	Inspection and verification	No. of times inspected
	Stock Taking	Value of stock
Quality Control	Testing Samples	No. of batches produced
Personnel management	Recruitment of employed	No. of employees required
	Maintenance of leave records and attendance	No. of employees
Marketing	Demand creation	Increase in sales
	Advertising	Increase in sales
	Dispatches	No. of orders
R&D	Research	No. of Research Projects
Machining	Set-up Cost	No. of production runs
	Power cost	Machine hours

Benefits and weakness of ABC

ABC is more expensive than the traditional system. So a cost-benefit analysis is desirable. The benefits of ABC are many.

1. In the traditional system cost analysis is done by product. In

ABC managers focus attention on activities rather than products because activities in various departments may be

combined and costs of similar activities ascertained e.g. quality control, handling of materials, repairs to machines, etc. If detailed costs are kept by activities, the total company costs for each activity can be obtained, analysed, planned and controlled.

2. Because costs are identified with activities and then allocated to products or services, based on appropriate cost drivers, more accurate product/service costs result. Since overhead or indirect costs occupies a significant proportion of the total costs of the firm, the overall impact of allocation of indirect costs to products/services more accurately is significant.

3. Managers manage activities and not products. Change in activities lead to changes in costs. Therefore, if the activities are managed well, costs will fall and resulting products will be more competitive.

4. Allocating overhead cost to production based on a single cost driver (allocation base) can result in an unrealistic product cost because the traditional system fails to capture cause and effect relationships. To manage activities better and to make wiser economic decisions, managers need to identify the relationships of causes (activities) and effects (costs) in a more detailed and accurate manner. ABC focuses on this aspect. It may be mentioned that activities drive costs. Therefore, costs should be assigned to factors that cause them.

5. ABC highlights problem areas that deserve management's attention and more detailed analysis. Many actions are possible on pricing, on process technology, on product design, on operational movements and on product mix, once management realises that a large number of its products and customers may be breakeven or unprofitable. The ABC systems are useful in setting priorities for managerial attention and action.

ABC is not free from certain weakness, as argued by the critics. They are mentioned below

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1. ABC fails to encourage managers to think about changing work processes to make business more competitive.
2. ABC does not conform to generally accepted accounting principles in some areas. For example, ABC encourages allocation of such non-product costs as research and development to products while committed product costs such as factory depreciation are not allocated to

products. In the USA, most companies have accordingly used ABC for internal analysis and continued using the traditional costing for external reporting.

3. Using ABC for short-run decisions may sometimes prove costly in the long run. Consider, for example, the decision about lowering sales order handling costs by eliminating small orders that generate lower margins. While this strategy reduces the number of sales orders (the driver), customers may want frequent delivery at small lots at infrequent intervals. In a competitive environment (when other companies may be willing to meet the customers' needs); long term profits may suffer due to elimination of small orders.
4. ABC does not encourage the identification and removal of constraints creating delays and excesses. An overemphasis on cost reduction without regard to the constraints does not create an environment for learning about the problems and their management.

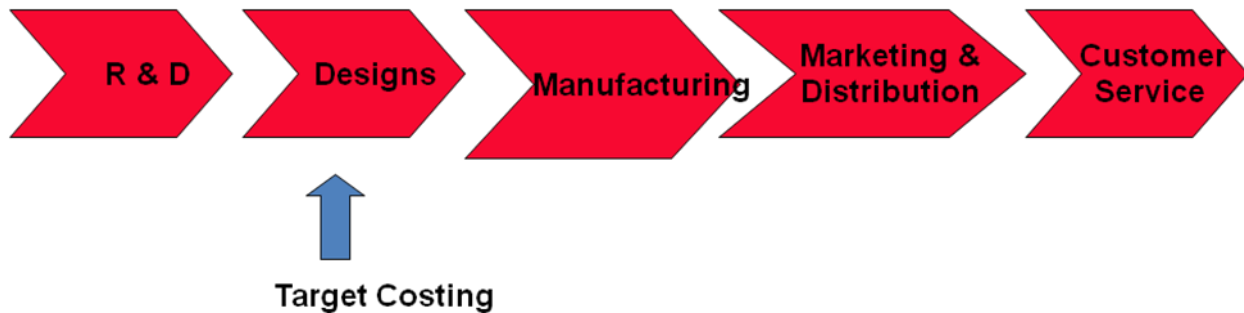
Target Costing

In today's corporate boardrooms, where global competition, increased customer expectation and competitive pricing in many industries have forced firms to look for ways to reduce cost year after year at the same time producing products with increased levels of quality and functionality.

The firms have two options for reducing costs to a target cost level

- a) By integrating new manufacturing technology, using advanced cost management techniques such as activity-based costing and seeking higher productivity.
- b) By redesigning the product or service. This method is beneficial for many firms because it recognizes that decisions account for much of total product lifecycle costs.

Target costing in the cost lifecycle



Implementing in Targeting Costing

Implementing in target costing approach involves five steps

1. Determine the market price
2. Determine the desired profit
3. Calculate the target cost at market price less desired profit.
4. Use value engineering to identify ways to reduce product cost.
5. Use kaizen costing and operational control to further reduce costs.

Using target cost in the concept and design stages

Target costing is an iterative process that cannot be de-coupled from design. The pre-production stages can be categorized in a variety of different ways in the detailed discussion below. Five different stages are used and the different activities are now listed.

1. Planning

This includes fixing concept and the primary specifications for performance and design. A very brief concept might be a small town car for two people with a large amount of easily accessible luggage space and low fuel consumption – aimed at those in their mid-twenties and so style is important. (In reality the concept would be much fuller.) Value engineering analysis (VE) could be used to identify new and innovative, yet cost effective, product features that would be valued by customers and meet their requirements.

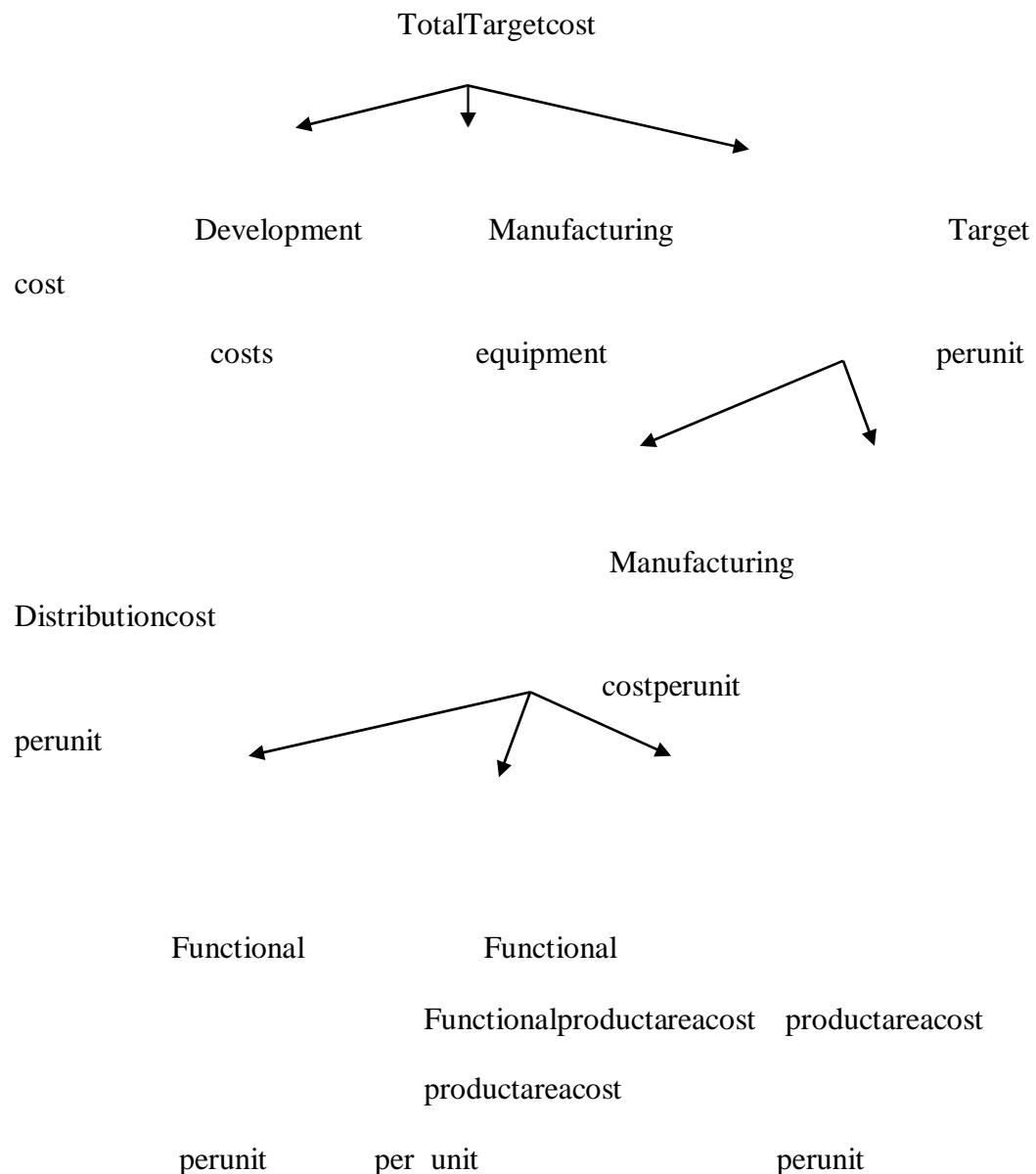
Once the concept has been developed a planned sales volume and selling price, which depend on each other, will be set, as well as the required profit discussed earlier. From this the necessary target cost (or allowable cost as it is often known) can be ascertained.

$$\text{Target cost} = \text{Planned selling price} - \text{Required profit}$$

2. Concept design

The basic product is designed. The total target cost is split up as illustrated in figure below. Firstly an allowance for development costs and manufacturing equipment costs are deducted from the total. The remainder is then split up into units costs that will cover manufacturing and distribution etc. The manufacturing target cost per unit is assigned to the function areas of the new product. For example, a function area for a ballpoint pen might be the flow of ink to the tip and function area for a car might be the steering mechanism.

The breakdown of target cost



3. Basic design

The components are designed in details so that they do not exceed the functional target costs. Value engineering is used to get the costs down to the target. If one function cannot meet its target, the targets for the others must be reduced or the product redesigned.

4. Details design

The detailed specifications and cost estimates are set down from the basic design stage